NC Computer Science

Initiative Update

State Board of Education Meeting
August 7, 2019

Mary Hemphill, Ph.D.

Director of Computer Science & Technology Education

NC Department of Public Instruction

CS Steering Committee Recommendations to the SBE

1. Amend necessary SBE policies to allow Computer Science to become a NCSCOS by August 2019

2. Grant permission for the development of a NC Computer Science Framework & Implementation Plan to support the NC CS Initiative by April 2020

3. Grant permission to move forward with the future development of the K-12 Computer Science Standards by April 2020

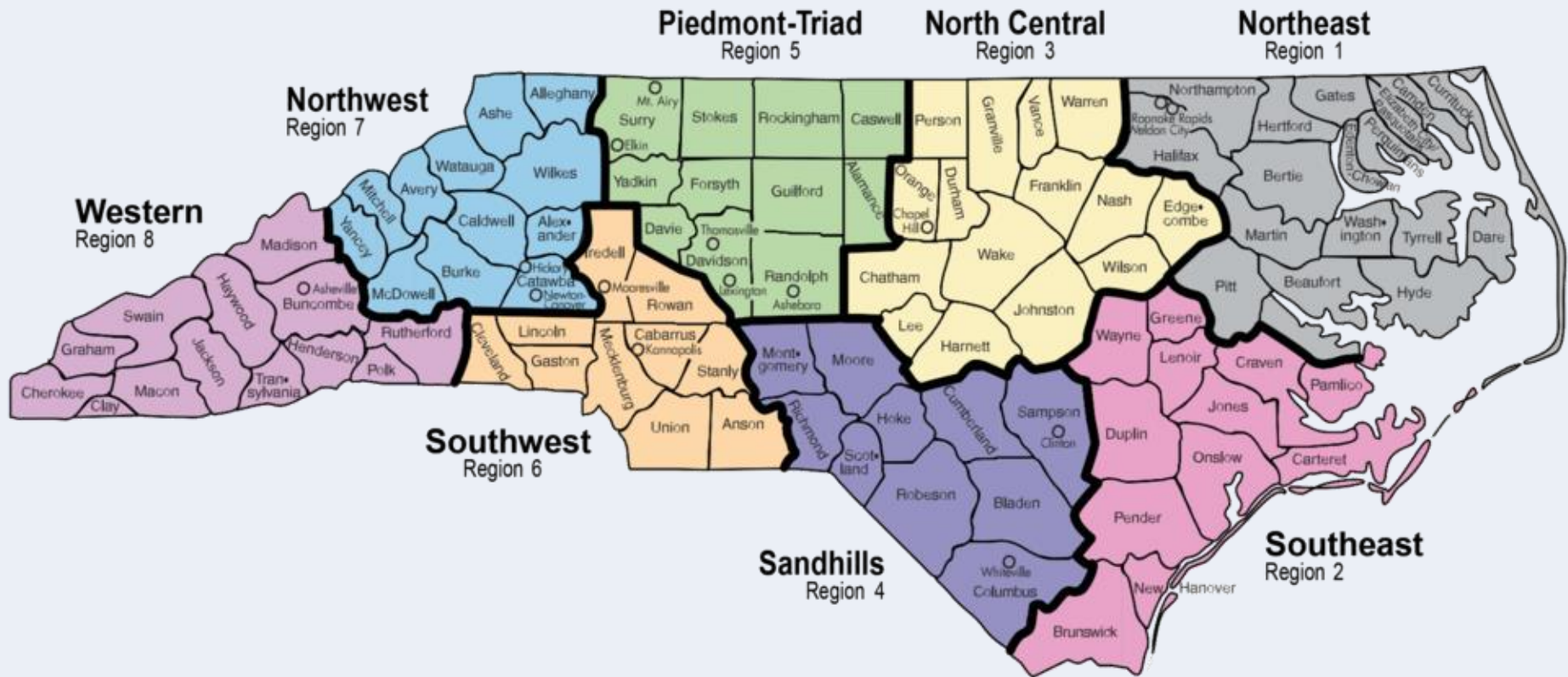4. Approve Computer Science as a NCSCOS by April 2020

Mobilizing CS Stakeholders

In order to target educational stakeholders already engaged in Computer Science, our department has reached out to educators at all levels of the education system throughout the state:

- AP & IB digital newsletter
- CS teachers at the Summer CTE Conference
- CS Discoveries & CS Principles PD

Mobilizing CS Stakeholders

CS representation across the state with the development of K-12 writing teams
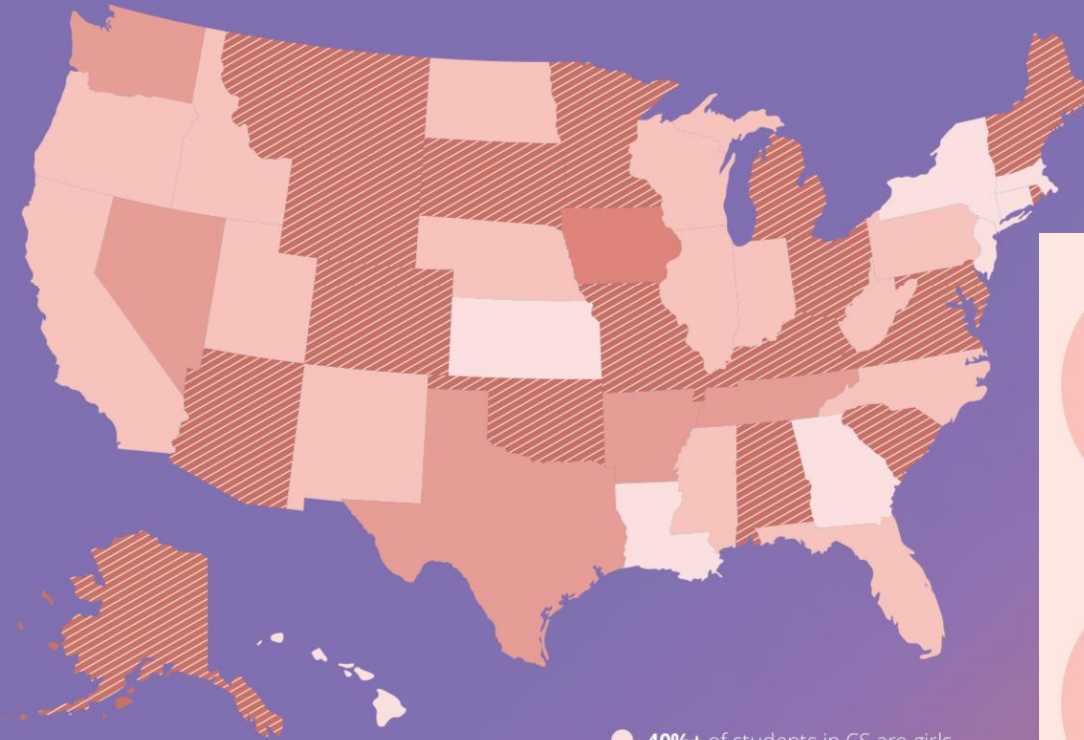
Addressing the Gender Gap

2019 ADVOCACY REPORT

THE STATE OF GIRLS IN K-12 COMPUTER SCIENCE CLASSROOMS: MAKING THE CASE FOR GENDER-SPECIFIC EDUCATION POLICIES

girls who code

According to states' own data from the last two years, states with policies aimed at increasing the volume of CS classrooms have not seen increased participation by girls. Boys still make up the overwhelming majority of students in CS classrooms.
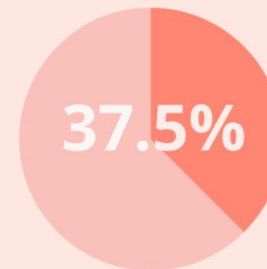
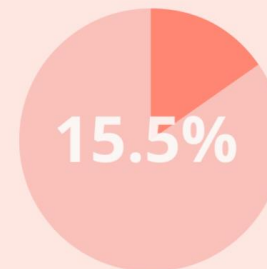# The State of Girls' Participation in Computer Science in NC

2017-2018

37.5%

GIRLS' PARTICIPATION RATE IN K-12 CS IN 2017-18[5]

Nationally, participation by girls in computer science courses in grades K-12 averaged 37.5% of all students.
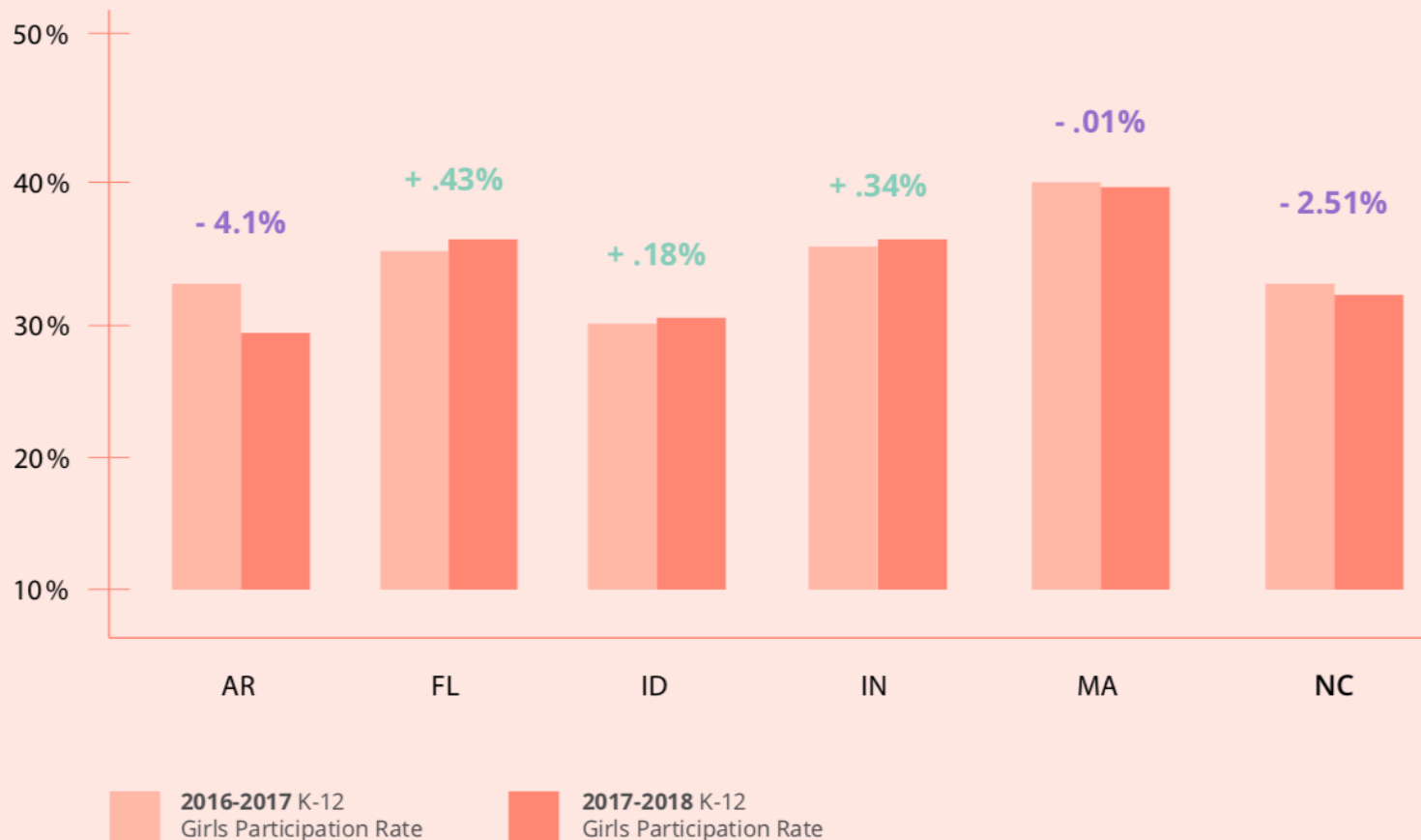
15.5%

GIRLS IN HISTORICALLY UNDERREPRESENTED GROUPS (HUGS) PARTICIPATION RATE IN K-12 CS IN 2017-18[6]

Nationally, participation by girls from HUGS in computer science courses in grades K-12 averaged 15.5% of all students.

- 🔵 **40%+** of students in CS are girls
- 🔵 **30%+** of students in CS are girls
- 🔵 **20-29%** of students in CS are girls
- 🔵 **10-19%** of students in CS are girls
- ⫽ **Non-responsive** states, or states with no data

Impact of Policies by State

Change in girls' participation rates in states with access policies in place & tracked data

#IAmCS Campaign

The #IAmCS Campaign will move the needle in NC when it comes to the staggering gender & equity gap for NC students in the Computer Science ecosystem

- show K-12 students possibilities for their future in realistic & tangible ways
- women across NC representing "diversity by industry"
- NC-based organizations, entities, & industries
- high-powered visualizations

#IAmCS Campaign

- **Meihui Bodane**, Assistant Secretary of Policy, Research, & Strategy
  NC Department of Commerce
- **Carol Burroughs**, Analytics Director
  NC Department of Information Technology
- **Aria Chernik**, Founder & Director
  Open Source Pedagogy, Research + Innovation (OSPRI)
- **Charlotte Dungan**, AI Program Analyst
  NC School of Science & Mathematics
- **Mariah Morris**, 2nd Grade Teacher (Moore County Schools)
  2019 Wells Fargo NC Teacher of the Year
- **Abi Olukeye**, Founder
  Smart Girls HQ
- **Maria Thompson**, Chief Risk Officer
  NC Department of Information Technology

#IAmCS Campaign

- **Jason Scott**, Graphic Designer NCDPI
- **Laura Weakland,** Duplicating & Graphics Manager NCDPI

District Deep Dives & CS

There are NC districts that are early adopters of principles of the NC CS Initiative along the K-12 continuum.

Moore County represents one such NC district doing amazing work in their district from elementary to secondary.